

WHAT IS CLAIMED IS:

1. An oscillator comprising:
a transistor having a collector receiving a power
5 supply voltage;
a first capacitor connected between a base and an
emitter of the transistor;
a second capacitor connected between the first
capacitor and ground;
10 a resistor connected between the collector and
the base of the transistor;
a first inductor connected between the base of
the transistor and ground; and
a second inductor connected to the emitter of the
15 transistor and the first inductor.

2. The oscillator as claimed in claim 1,
wherein the second inductor is grounded via a part of
the first inductor.
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3. The oscillator as claimed in claim 1,
further comprising an output terminal via which an
oscillation signal is output, the output terminal being
connected to one end of the first inductor.
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4. The oscillator as claimed in claim 1,
further comprising an output terminal via which an
oscillation signal is output, the output terminal being
connected to an intermediate node of the first inductor
30 to which the second inductor is connected.

5. The oscillator as claimed in claim 1,
further comprising:
an output terminal via which an oscillation
35 signal is output, the output terminal being connected
to one end of the first inductor; and
a matching circuit that is connected to the

output terminal and includes a third capacitor.

6. The oscillator as claimed in claim 1,
further comprising:

- 5 an output terminal via which an oscillation
signal is output, the output terminal being connected
to an intermediate node the first inductor to which the
second inductor is connected; and
a matching circuit that is connected to the
10 output terminal and includes a third capacitor.

7. The oscillator as claimed in claim 1,
further comprising:

- 15 an output terminal via which an oscillation
signal is output, the output terminal being connected
to one end of the first inductor; and
an impedance adjustment circuit connected to the
output terminal.

20 8. The oscillator as claimed in claim 1,
further comprising:

- 25 an output terminal via which an oscillation
signal is output, the output terminal being connected
to an intermediate node the first inductor to which the
second inductor is connected; and
an impedance adjustment circuit connected to the
output terminal.

9. The oscillator as claimed in claim 5,
30 further comprising a substrate on which the transistor
is formed, the substrate having a conductive pattern
that forms the third capacitor.

10. The oscillator as claimed in claim 6,
35 further comprising a substrate on which the transistor
is formed, the substrate having a conductive pattern
that forms the third capacitor.

11. The oscillator as claimed in claim 1,
wherein the first inductor comprises a transmission
line.

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12. The oscillator as claimed in claim 1,
wherein the first inductor includes a micro stripline.

13. The oscillator as claimed in claim 1,
10 further comprising a variable capacitance diode that is
connected to the first inductor and receives a control
signal via a control terminal of the oscillator, so
that an oscillation frequency can be adjusted
externally.

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